



ANALOG SYNC GENERATOR 812-OP/G



For Future Generations

The SPG-812 analog test set (812AT or OP/G) is an important element of the GenFlex family of products. The SPG-812 analog test set module allows the user to select from sixteen (16) different video test patterns by a front panel switch or through a remote control unit, the SPG-812TRC. These patterns are produced in any one of four (4) possible formats:

1. Composite video plus a Y/C pair.
2. SMPTE Component video: Y-Pr-Pb.
3. Red, Green, and Blue. (RGB).
4. Green + Sync, Blue, and Red.

All patterns are produced at 10-bit resolution and use high-performance hybrid post-filters with integral output amplifiers. Both NTSC and PAL video standards are supported.

When genlocking to incoming video, the SPG-812 chassis will have either an analog (812AG or OP/C) or a digital genlock module (812DG or OP/D) installed in the bottom slot next to the power supply. The Genlock module places the required timing pulses on the motherboard buss to allow each subsequent module to lock to a single reference. The analog test set offers "infinite window" timing of horizontal and vertical as well as 360° subcarrier phasing. Timing information is stored in battery-backup RAM within the unit's onboard microcontroller.

The PCO-818 automatic pulse change-over modules operate as independent or synchronized operation. Two PCO-818 change-over chassis may be interlinked to cause all modules to switch should a failure occur in the master generator.

The analog test set module may be installed in any slot within the SPG-812 chassis except for the slot dedicated to the audio module. If the 812AT is installed in the "Genlock Module or Master" slot, it will serve as the master timebase for all other modules in the chassis, and the overall unit would have no genlocking capability. The SPG-812 analog test set uses a single 2-bit mechanical encoder to control all module functions including system timing and pattern selection. An eight-character alpha-numeric display provides a menu of options for each module parameter.

The 812-OP/G is the plug-in module that provides 16 analog test signals. The test signals are:

- 1) 100% color bars
- 2) 75% color bars
- 3) SMPTE color bars
- 4) 5-Step modulated stairstep
- 5) 5-step un-modulated stairstep
- 6) modulated ramp
- 7) un-modulated ramp
- 8) 2T/12.5T pulse & bar
- 9) field square wave
- 10) SDI pathological pattern
- 11) 50% multiburst
- 12) 100% line sweep
- 13) red field
- 14) shallow ramp
- 15) gray
- 16) black.

812-OP/G ANALOG TEST GENERATOR

SPECIFICATIONS

ANALOG VIDEO OUTPUTS:

Formats:

Composite video and S-video (Y/C): BNC Connector Shared with Composite Video
Component analog video (SMPTE Y, Pb, Pr): BNC Connectors
Red, Green, Blue (RGB): BNC Connectors
Red, Green + Sync, Blue (RGsB): BNC Connectors

Performance

Video Standard: NTSC/PAL Selectable
Connector: 75Ω BNC
Signal-to-Noise Ratio: -70dB, A Weighted
Output Return Loss: -40dB@ 3.5MHz
Differential Phase: 0.5°, Typical
Differential Gain: 0.9%, Typical
Luminance Rise Time: 140ns ±20ns
Group Delay: ±5ns
Frequency Response: 0.1dB to 5.5MHz
Generator Bit Resolution: 10Bit
Generator Sample Rate: 13.5MHz Luminance, 6.75MHz Chroma

PHASING CONTROLS:

Horizontal Phasing Infinite Window
Resolution 37nS/ Increment
Vertical Phasing Infinite Window
Resolution 1 line or 63.5 uS/ Increment

REFERENCE INPUTS:

Signal Type Horizontal Blanking ,Vertical Blanking, Field Identification

ENVIRONMENTAL:

Temperature 0 to 50 C ambient
Humidity 10% to 90% non-condensing
Power 4.2 Watts

MECHANICAL:

Length 10.0"
Width 4.27"
Weight 8 oz.

FRONT PANEL LED INDICATORS:

Power Green/In the pattern select switch
H-Lock Green/horizontal is locked to incoming H/Red horizontal is unlocked
NTSC Green/SW1 is selecting NTSC
PAL Yellow/SW1 is selecting PAL

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